HITACHI

Inspire the Next

Digital Terrestrial TV Receiver

Model

HDB60

Instruction manual

To obtain the best performance and ensure years of trouble-free use. please read this instruction manual completely.

CONTENTS

IN THE BOX 2

AV SWITCHING 2

OVER AIR DOWNLOAD 2

YOUR DIGITAL RECEIVER 3

REMOTE CONTROL HANDSET 4

REMOTE CONTROL HANDSET 5

PREPARATION 1 6

PREPARATION 1 7

EVERYDAY OPERATION 2 8

ADVANCED OPERATION 3 13

APPENDIX A - SAFETY 19

APPENDIX B - SPECIFICATION 20-21

APPENDIX C - CONNECTING A VCR 22

APPENDIX D - TROUBLESHOOTING GUIDE 23

IN THE BOX

Inside your HDB60 receiver package you should have:

This user guide

HDB60 digital terrestrial television receiver

Mains adaptor

Set of batteries for the handset

Aerial cable

SCART cable

AV SWITCHING

If after connecting the **HDB60** to your TV as shown you do not see a picture, press AV button on your TV remote until you see the “First Time Install” screen.

OVER AIR DOWNLOAD

Over Air Download: To ensure that your digital receiver always has the most up todate information. Please ensure that after use it is set to its standby mode. The **HDB60** automatically powers up at 3AM each day and searches for any new information which may be broadcast and will download this to your box automatically. This operation will normally take approximately 30 seconds.

If you have an important recording to make at 3AM which must not have a 30 second interrupt then you can disable the auto OAD search by performing the following:

1. Press Menu button and using the up / down buttons highlight CONFIG and press the SELECT button,

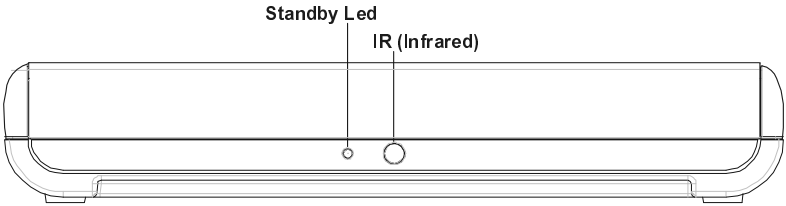
2. Use the up and down buttons to highlight "RECEIVER UPGRADE" and press SELECT button.

3. Using the left / right button change function from Enable to Disable.

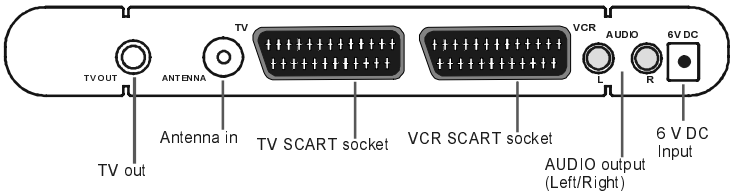
4. Press SELECT button then MENU and MENU to return to Normal l operation.

Do not forget to re enable the automatic OAD function after you have made your recording by repeating the above instructions but this time selecting ENABLE.

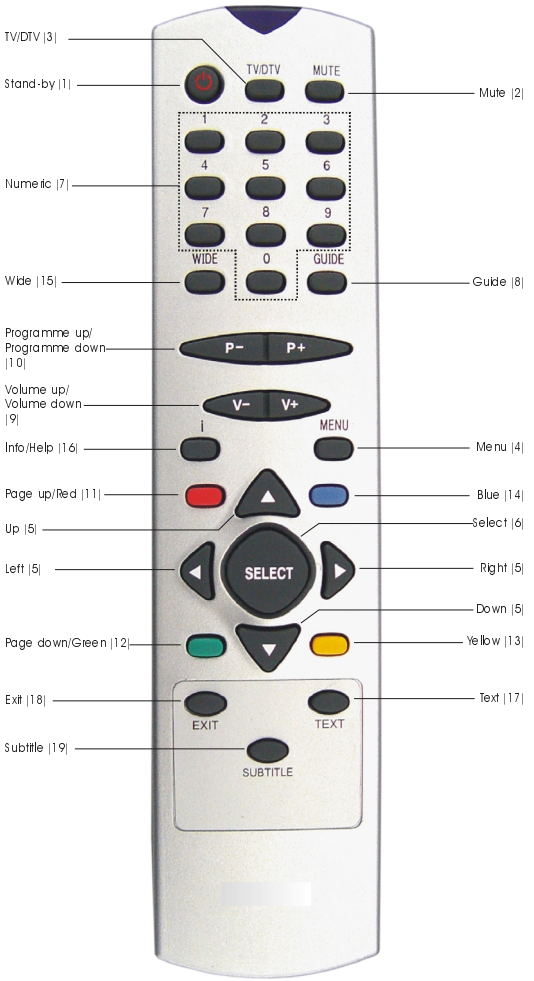
Front


Standby Led
IR (Infrared)

Rear


TV OUT
ANTENNA
TV
VCR
AUDIO
L
R
6V DC
TV out
Antenna in
TV SCART socket
VCR SCART socket
AUDIO output
(Left/Right)
6 V DC
Input

REMOTE CONTROL HANDSET



REMOTE CONTROL HANDSET

REMOTE BUTTONS

Button		Function
1	**Standby**	Turn the receiver on and off
2	**Mute**	Silence received audio
3	**TV/DTV**	Exit most menus to return to television viewing Switch the TV set between analogue, digital TV and VCR
4	**Menu**	Display the Main Menu. Exits menus
5	**Up, Down, Left, Right**	Move between menu items
6	**Select**	Make selection in a menu
7	**Number keys**	Change channels Enter PIN code Enter numbers and letters into menus
8	**Guide**	Display and exit electronic programme guide
9	**V+, V-**	Adjust the received audio volume
10	**P+, P-**	Change channels
11	**Page Up/Red**	Move up a page through channel list Move to top in EPG programme details Select red option in digital teletext
12	**Page Down/Green**	Move down a page through channel list Select green option in digital teletext Move to bottom in EPG programme details
13	**Yellow**	Scroll up through EPG programme details Select yellow option in digital teletext
14	**Blue**	Scroll down through EPG programme details Select blue option in digital teletext
15	**Wide**	Select screen format
16	**i**	Display menu help
17	**Text**	Start and stop digital teletext
18	**Exit**	Return to Exit from menu
19.	**Subtitle**	Turn Subtitles ON and OFF

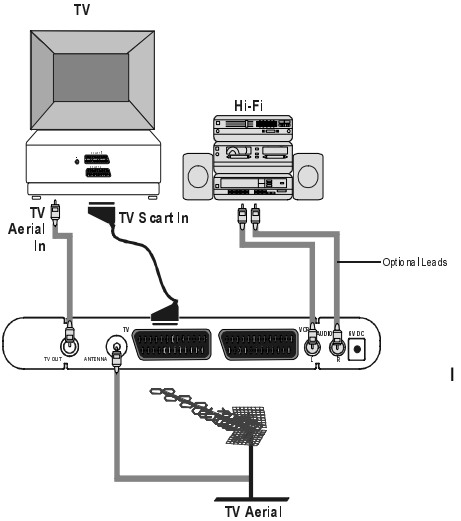
CONNECTIONS

Place your **HDB60**receiver on a firm, level surface with at least a 10cm gap around all sides of the case and in a position convenient for connection to your television, a mains power outlet and a TV aerial wall outlet (or the 'flying lead' from your TV aerial, as appropriate).

Please refer to the safety section in Appendix A.

Turn off your television at the mains and disconnect the lead going to the aerial wall outlet (or the flying aerial lead) and connect this to the ANT IN socket on the rear of the receiver. Connect the aerial cable supplied from the TV OUT socket on the receiver to the TV set's aerial socket.

Connect the TV SCART socket on the rear of the receiver to a suitable SCART socket on your television. There may be more than one SCART socket on your television and, if unsure which to use, you should refer to its manual for guidance.



If you have a VCR or other equipment connected to your television, please connect the receiver as described here and refer to Appendix D later when satisfied that the receiver is functioning normally.

Finally, plug the receiver into the mains outlet.

Remove the battery compartment cover from the rear of the remote control handset by lifting the catch at one side. Insert two AAA (MN2400) sized batteries, taking care to observe the correct orientation as marked on the inside of the compartment. Replace the compartment cover.

PREPARATION 1

SWITCHING ON

Turn on your TV set and select the SCART input (with the AV key, or similar, on thetelevision remote control). Turn on the mains supply to the **HDB60** receiver (the indicator on the front of the receiver will glow red) and press the [STANDBY] key on the **HDB60**remote control handset. The indicator light will glow green and the receiver's menu will be seen on the TV screen.

If you do not see the receiver's menu on the television screen, refer to the Troubleshooting Guide in Appendix E.

TUNING IN

Because this is the first time that the receiver has been used, there are no channels stored in the receiver's memory and the First Time Installation menu is displayed on the screen.

First you should select the type of TV set you have connected to the **HDB60**receiver. Press the [LEFT] or [RIGHT] keys on the remote control handset to switch the indicator on the screen to show either 16:9, if you have a 16:9 or 'widescreen' TV, or to 4:3 if you have a standard TV set. Then press [SELECT] to start the installation process. The next menu will ask if you want to tune in the digital terrestrial television channels.

Using the [LEFT] or [RIGHT] keys on the remote control, make sure that the YES button is highlighted in yellow, and press the [SELECT] key to start the automatic search.

The **HDB60** receiver will automatically tune to the UHF transmission channels 21 to 68 looking for digital terrestrial TV broadcasts and displaying the names of channels found. This process will take about five minutes.

When the search is finished, the first channel of the channel list and the information banner is displayed you can now watch digital terrestrial television, selecting the channel you require as described in the next section.

HINT

Depending on the reception conditionsin your particular area, you may find that the list of channels found includes one or more repeated names. This is because the receiver may detect and store some channels, including those it cannot receive clearly, from adjacent areas alongside the strong channels from a transmitter nearby. This is not a problem and the weaker channels can be deleted from the receiver later, as described in Section 3 - ADVANCED OPERATION - Editing the channel list.

If no digital terrestrial television broadcasts are found the receiver will display a message:

You should then refer to the Troubleshooter Guide in Appendix E to establish the cause of the problem.

When you have finished watching digital terrestrial TV, you may wish to switch the receiver to standby to save power - although the **HDB60**receiver can remain powered up continuously, even when the television is turned off, without harm to the television or itself. The receiver is returned to standby by pressing the [STANDBY] key on the remote control handset.

Hint

In standby, the HDB60 receiver still consumes power and thereby contributes to air and water pollution and the exhaustion of the World's natural resources. Overnight, or when your receiver is not going to be used for long periods of time, you can turn it off at the mains and this will save energy (and save you money). You will not have to re-install the receiver when it is turned on again.

EVERYDAY OPERATION 2

While using the **HDB60** receiver to the full there are great many keys to use in different situations. Many of the menu screens displayed by the receiver have reminders as to which keys do what, at the base of the screen. In addition, many screens have further help available which is displayed when the [i] key is pressed, as prompted at the bottom right of the screen.

Providing your TV set SCART socket has switch control, pressing the [TV/DTV] key at any time while watching television programmes will switch the TV set between displaying the digital terrestrial television programme and its normal analogue television reception.

CHANGING CHANNELS

You can select the channel you wish to watch in one of four ways - stepping through the channel list, selection by number, from the on-screen channel list, and using the electronic programme guide (EPG).

To move through the channel list, press the [P+] or [P-] keys on the remote control. Pressing the [P+] key will select the channel next in the channel list. Pressing the [P-] key will select the previous channel in the list.

Pressing the [P+] key when the last channel in the list is being viewed will select the first channel. Similarly, pressing the [P-] key when the first channel is displayed will select the last channel in the channel list.

You can also select the required channel using its channel list number. Channel numbers are entered using the number keys on the remote control handset and can be up to three digits long.

Hint

The channel list numbers are assigned by the broadcasters. Because not all channels are broadcast free-to-air and stored by the receiver, the channel list numbers do not run continuously. The fifteenth channel in the list, for example, may not be channel number 15 but channel number 17.

When you press a number key on the remote control, a small box appears in the top left of the screen to show the entered number. After each digit is entered, the receiver will wait up to two seconds for the next digit to be pressed until either three digits have been entered or you do not press a digit in time. The channel corresponding to the entered number in the box will then be selected.

Hint

If you enter a number which does not correspond to a stored channel, the next valid channel number is selected instead. If you enter a number greater than the highest numbered channel in the channel list, the receiver will select the last channel in the list.

Information Banner

Whenever you change channel, using the [P+] and [P-] keys or the number keys, the receiver displays the channel picture along with an information banner at the bottom of the screen. This will remain on the screen for approximately three seconds. The information banner can also be displayed at any time while watching TV by pressing the [i] key on the remote control. Pressing the [i] key again removes the banner.

Hint

Not all channels broadcast the programme data. If the name and times of the programme is not available then 'Not available' is displayed in the information banner.

The information banner gives a number of facts on the channel selected and the programmes on it. The name of the channel is displayed, along with its channel list number and an indication of the strength of the signal received on this tuning channel.

The name and the start and finish time of the programme currently showing on the selected channel are given, and the current time.

Icons are also displayed in the information banner and if this channel is a favourite channel (see Section 3 - ADVANCED OPERATION - Favourite Channels).

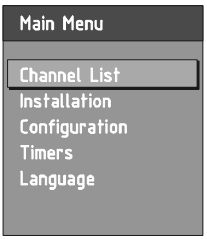
favourite channel

If the channel selected is locked (see Section 3 - ADVANCED OPERATION - Channel Protection), you must enter the correct four digit code to view the channel.

Alternatively, the [P+] or [P-] keys are used to move to another, unlocked channel.

CHANNEL LIST

You can also select the required channel directly from the on-screen channel list. This is displayed using the **HDB60** receiver's Main Menu. First bring up the menu with the [MENU] key on the remote control handset.



Using the [UP] or [DOWN] keys on the remote control, make sure that the first item, Channel List, is highlighted in yellow and press the [SELECT] key, to display the channel list.

Here, you can preview any channel stored by the receiver before viewing it full screen. The complete list of channels is displayed in pages of 10 channels at a time, with their channel list number and a favourite channel icon if appropriate (see Section 3 - ADVANCED OPERATION - Favourite Channels). The name and a quarter-screen image of the channel last viewed is displayed in the top right of the screen.

Using the [UP] or [DOWN] keys, the highlight is moved through the list to the channel required. Pressing [SELECT] now changes the quarter-screen display to show the highlighted channel.

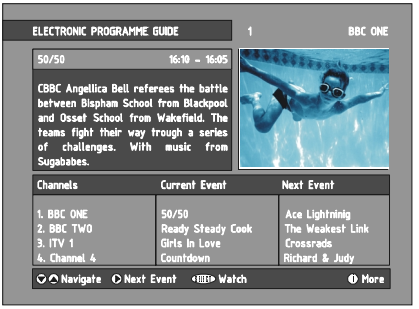
Hint

From the Channel List screen, it is possible to edit the channel list, including changing the name of stored channels or deleting them. Editing the list is covered in Section 3 - ADVANCED OPERATION - Editing The Channel List. When using the Channel List to select channels, use the [LEFT] or [RIGHT] keys to ensure that the highlighted button at the bottom of the screen is SELECT, so no editing functions are accidentally begun.

When you leave the Channel List screen, by pressing [MENU] the channel showing on the quarter screen is selected for normal viewing on the whole screen.

ELECTRONIC PROGRAMME GUIDE

The fourth way of selecting a channel is with the electronic programme guide, or EPG. The EPG is accessed by pressing the Guide key, [GUIDE]. Like the Channel List, the EPG screen displays a list of the stored channels (in pages of five channels) along with information on what programmes are being broadcast.



Current Programme

The channels are listed at the bottom of the screen, each with the 'current event' (the name of the programme showing at that time) and the 'next event' (the following programme). When the EPG screen is first displayed, the channel last watched is highlighted in the list of channels. A quarter-screen image of this channel is displayed at the top right of the screen along with the channel name and channel list number.

Details of the current programme on that channel (the name of the programme and, typically, a synopsis with details of the stars involved, the teams playing, or similar information) along with the start and finish times are displayed at the top left inside the dark blue text window.

Hint

If the channel you have been viewing is a digital teletext channel then no picture will appear in the quarter-screen window.

Moving the highlight through the list of channels using the [UP] and [DOWN] keys will change the programme details in the text window to reflect the channel highlighted. The quarter-screen window continues to show the channel last watched, so you can stay watching a programme while at the same time browse the details of what's on, on other channels.

You may then select the highlighted channel for viewing on the quarter-screen window by pressing the [SELECT] key.

You can leave the EPG screen, to enjoy normal full-screen viewing of the channel in the quarter-screen window by pressing the [GUIDE] key again, or the [MENU] key.

Hint

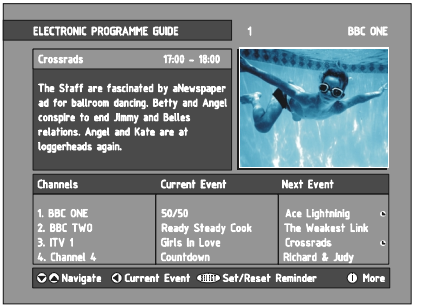
Not all channels broadcast all the programme information data. Some channels do not provide the current and next event data and/or the programme details. In this case the programme names and/or the details are not displayed. This is not a fault with your receiver.

Next Programme

While the EPG screen is displayed, pressing the [RIGHT] key highlights, in dark blue, the next event name in the list of channels and displays the highlighted channel's programme details for the next event (the programme following the current programme) in the text window. As before, you can browse through the list, checking the programmes coming up next on all the channels.

Hint

If the programme details text for the current or next event is too long to fit into the text window on the EPG screen, a scroll bar appears on the right hand side of the window and the text can be scrolled up or down using the [YELLOW] and [BLUE] keys on the remote control.



Pressing the [SELECT] key while the next event details are displayed will set a reminder to watch that programme. See Section 3 - ADVANCED OPERATION - Programme Reminders And Timers.

You can return to the current programme display by pressing the [LEFT] key or to normal television viewing (to watch the channel last selected in the EPG screen) by pressing the [GUIDE] key again, or the [MENU] key.

AUDIO CONTROL

Volume Control

The volume level of the sound from the **HDB60** receiver can be altered with the [V+] and [V-] keys on the remote control handset. Pressing either key displays a bar graph of the sound volume on the TV screen.

The volume level selected will remain set, even when the receiver is turned off and on again, until it is altered with the [V+] and [V-] keys.

Hint

The audio volume adjustment for the HDB60 receiver is independent of the volume control on your TV set. Be careful that both volume controls are kept within reasonable levels so that when switching from analogue to digital television viewing, or when first turning on your TV set, the sound level is not suddenly very high.

You can silence the sound from the receiver by pressing the [MUTE] key. The sound remains muted until the [MUTE] key is pressed again, the [V+] or [V-] keys are pressed, or until the receiver is turned off and on again.

While the sound is muted in this way, the mute symbol is displayed in the top left of the TV screen. The symbol is removed after 3 seconds, but the sound will remain muted until the [MUTE] key is pressed for the second time, and the un mute symbol will display for 3 seconds.

Soundtrack Language

Some programmes are broadcast in two or more languages simultaneously. The language heard can be selected from the Language Menu. Press [MENU] to display the Main Menu and use the [UP] or [DOWN] keys to highlight the Language line and press [SELECT]. Use the [UP] or [DOWN] keys to highlight the soundtrack language required and press [SELECT]. Normal viewing, with the required language soundtrack, can be resumed by pressing the [MENU] key.

If the programme has no alternative language soundtrack broadcast, the Language Menu will not be available, but a message, 'No Multi Language Available' is displayed briefly.

DIGITAL TELETEXT

Many digital terrestrial television channels not only broadcast pictures and sound for programmes but also pages of information on the programmes, the weather, news and many other topics. This digital teletext can be displayed by the **HDB60** receiver.

Some channels are entirely given over to digital teletext and carry no normal TV programme at all. These dedicated digital teletext channels will not give a quarter-screen image in the EPG or the Channel List screen. When such a channel is selected, after a brief pause, they will usually display the opening page of information automatically.

Other channels have digital teletext pages broadcast alongside the television programme and often include a reduced-size broadcast picture within digital teletext pages. These usually require the [TEXT] button to be pressed to activate the digital teletext pages.

In both cases, moving through the different pages of information is accomplished in a variety of ways, dependent on the individual broadcasters, but including use of the [UP], [DOWN], [LEFT], [RIGHT] and [SELECT] keys to select items from on-screen menus, and the coloured keys to jump directly to particular pages.

You can exit any digital teletext channel by changing channel in any of the normal ways. You can leave the digital teletext function of a combined digital teletext/programme channel, to return to normal television viewing of that channel, by pressing the [TEXT] key.

Hint

Calling for the information banner or any menu on-screen stops the receiver from displaying the digital teletext pages and they are temporarily replaced by a blank picture while the banner or menu is displayed.. Digital teletext cannot be accessed when the Subtitles are enabled (See Section 2 - ADVANCED OPERATION - Configuring Your Receiver.

WIDESCREEN

TV sets are available with screens of the standard (4:3) format and widescreen (16:9) format. When you first installed your **HDB60** receiver you specified the format of the connected TV (this can now be altered if necessary; see Section 3 - ADVANCED OPERATION - Configuring Your Receiver).

Digital terrestrial television broadcasts are also made in both standard and widescreen formats. In particular, films and dramas tend to be broadcast in widescreen format to closer emulate the cinema experience, but even some news bulletins are widescreen. To help get the most from both TV set and programme when a widescreen film is watched on a standard TV, or a standard broadcast is viewed on a widescreen set, the **HDB60** receiver includes the [WIDE] key.

So long as the receiver has been correctly set up for the TV set connected, a widescreen programme will always be displayed correctly on a widescreen set, and a standard format programme will correctly fill the screen of a standard format TV.

With a widescreen TV set displaying a standard format programme, the [WIDE] key switches between displaying the picture with black bars down the sides, and enlarging the picture so that it fills the whole width of the screen but the top and bottom are cropped off.

With a standard format TV displaying a widescreen programme, the [WIDE] key switches between displaying the picture with black bars at the top and bottom of the screen, and filling the whole height of the screen but cropping the sides off according to instructions broadcast with the programme (called 'pan and scan').

The effect of the [WIDE] key on the picture display is cancelled by pressing [WIDE] again, changing channel or turning the receiver to standby.

Subtitle

Subtitle key Shows/hides subtitles of channel. When the subtitle key is pressed, subtitle ON/OFF message is displayed.

TV / DTV Key

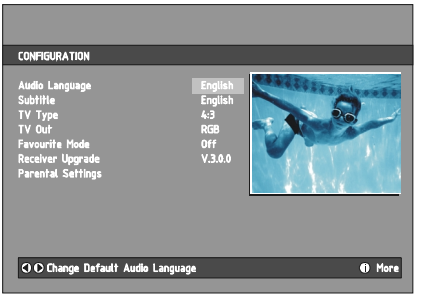
If there is no connected VCR device, The TV/DTV key is used to toggle TV and DIGITAL TV modes. When the set-top box is in TV mode, the TV scart is not switched and the TV operates in analog mode.

When the set-top box is in DIGITAL TV mode, this time the TV scart is switched on and the TV is switched to AV/RGB mode. And also, when there is no menu on the screen , pressing TV/DTV key will manually toggle the set top box between VCR mode and TV mode. In VCR mode set top box will display the output of VCR device , In TV mode set top box displays its own outputs. If box scart mode is not changed by pressing TV/DTV key , scart mode will be automatically detected . (For example if a dvd player is connected to VCR scart and powered on , then the set top box will immediately switch to VCR mode. The set top box will switch to TV mode if dvd player is switched off)

ADVANCED OPERATION 3

CONFIGURING YOUR RECEIVER

Many aspects of your **HDB60** receiver can be set up to reflect your circumstances and preferences. The Configuration menu screen is accessed from the Main Menu. Press the [MENU] key to display the Main Menu and the [DOWN] key twice to highlight Configuration, then press [SELECT] to display the Configuration menu screen.



The various configuration functions are displayed in a list, along with a quarter-screen image of the currently selected channel. You can select a function by highlighting the corresponding menu line with the [UP] or [DOWN] keys. There are seven configuration functions.

Audio Language

Digital terrestrial television channels can broadcast simultaneous soundtracks in more than one language. This function selects which language soundtrack you will hear when switching to a channel broadcasting with multiple soundtracks. See also Section 2 - EVERYDAY OPERATION - Audio Control.

Highlight the Audio Language line in the Configuration menu and use the [LEFT] or [RIGHT] keys to cycle through the language options.

Return No Menu to normal TV viewing by pressing the [MENU] key.

SUBTITLE

Digital terrestrial television channels can broadcast with subtitles displayed on-screen for the hard-of-hearing. This function selects the desired subtitle language and enables the automatic display of subtitles whenever subtitle information is broadcast.

Highlight the Subtitle line in the Configuration menu and use the [LEFT] or [RIGHT] keys to cycle through the disable and language options.

Return NO MENU to normal TV viewing by pressing the [MENU] key.

TV TYPE

Digital terrestrial television channels can broadcast programmes in a widescreen format which must be output differently to normal and widescreen TV sets. This function tells the receiver the screen format of the TV connected so that broadcasts are displayed correctly.

Highlight the TV Type line in the Configuration menu and use the [LEFT] or [RIGHT] keys to select 4:3 if you have a standard TV set connected or 16:9 if it is a widescreen TV. This function duplicates the selection made at the time of first installation (see 1 - PREPARATION - Tuning In) and can be used if you change TV sets.Return NO MENU to normal TV viewing by pressing the [MENU] key.

TV OUT

The **HDB60** receiver can output either an RGB or CVBS signal from the TV SCART on the rear panel. Although the RGB format results in a better quality picture, not all equipment - particularly some VCRs - can cope with an RGB signal (see Appendix C - Connecting A VCR).

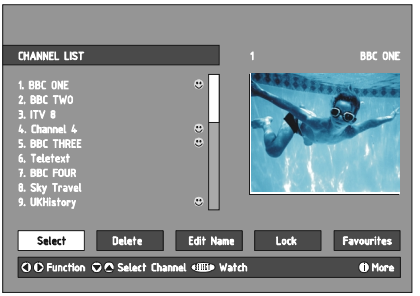
PARENTAL SETTINGS

This function enables or disables the menu protection system and allows the PIN code to be changed. See 3 - ADVANCED OPERATION - Channel And Menu Protection.

EDITING THE CHANNEL LIST

The digital terrestrial television channels found by the receiver when first installed are storedin its memory as a channel list. This list can be altered and amended to remove unwanted channels and to suit your own preferences.

First bring up the Main Menu with the [MENU] key on the remote control handset. Then, using the [UP] or [DOWN] keys on the remote control, make sure that the first item, Channel List, is highlighted in yellow and press the [SELECT] key, to display the Channel List.



The Channel List screen displays the list of channels in the receiver's memory, with a quarter-screen image window showing the selected channel, and can be used to change channels for viewing, delete channels from the memory, edit the name of the channel as it appears in the list and on-screen, lock a channel against viewing by younger members of the family, and set up favourite channels.

Channel List functions are carried out on one channel at a time. The channel to be affected is first highlighted in the list using the [UP] or [DOWN] keys.

SELECT

This function selects a channel for viewing and is an alternative to using the [P+] and [P-] keys, channel number or EPG. Highlight the channel to be viewed, highlight the SELECT button at the base of the screen using the [LEFT] or [RIGHT] keys and press [SELECT]. The highlighted channel now appears in the image window and you can leave the Channel List to view the channel by pressing [MENU].

DELETE

The initial installation of the **HDB60** receiver can produce duplicate entries in the channel list from transmitters operating at different frequencies in adjacent areas, and you may wish to delete these duplicate entries from the list. In addition, other channels which you do not want in the list.

Highlight the channel to be deleted, highlight the DELETE button at the base of the screen using the [LEFT] or [RIGHT] keys, and press [SELECT]. The highlighted channel is deleted from the list.

You can now perform further editing on the channel list, or return to normal broadcast viewing by pressing the [MENU] key.

EDIT NAME

The channel names which appear in the channel list and the information banner are assigned by the broadcasters and some longer names are abbreviated to become unrecognisable. You can edit the names to suit your preferences with the Edit Name function.

Highlight the channel to be renamed, highlight the EDIT NAME button at the base of the screen using the [LEFT] or [RIGHT] keys, and press [SELECT]. The highlighted channel name appears on the right of the screen with the first character highlighted by a cursor. Any of the 15 characters that make up a channel name can be highlighted using the [LEFT] or [RIGHT] keys and the highlighted character changed by pressing the [UP] or [DOWN] keys to cycle through the alphabet, numbers and other characters available.

When the required changes have been made, pressing [SELECT] stores the new name and returns to the Channel List screen. Alternatively, pressing [MENU] will abandon the name change and return to the previous name.

You can now perform further editing on the channel list, or return to normal broadcast viewing by pressing the [MENU] key.

Using the other two functions of the Channel List menu screen - LOCK and FAVOURITES - is dealt with in the next sections.

Hint

You can also enter a channel name using the number keys on the remote control. Each key represents several letters and pressing a key several times will enter each letter (in both capitals and lower case), and the number, in turn, in the character position marked by the cursor. The zero key enters all the punctuation marks available and a blank space. With practise, this is a very quick means of entering the required letters into the channel name.

CHANNEL AND MENU PROTECTION

CHANNEL LOCK

Some channels broadcast material which you do not want younger members of the family to watch. Any channel can be 'locked' so that it cannot be selected for viewing without first a four-digit PIN code being entered. In this way any channel not suitable for younger viewers can be protected.

The channel lock is applied with the Channel List menu. Press the [MENU] key on the remote control handset to display the Main Menu and then, using the [UP] or [DOWN] keys on the remote control, make sure that the first item, Channel List, is highlighted in yellow and press the [SELECT] key.

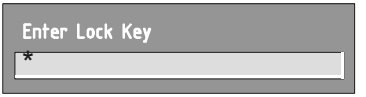
Highlight the channel to be locked using the [UP] or [DOWN] keys. Now select the LOCK button at the base of the screen with the [LEFT] or [RIGHT] keys and press [SELECT].

A window requesting the PIN code is displayed and the four-digit code should be entered using the number keys on the remote control, followed by the [SELECT] key. A lock icon is then displayed alongside the channel name in the channel list.

Hint

The PIN is factory set to 0000. This code should be reset (as described below) to another sequence of numbers, known only to you, when you have finished setting up the receiver.

You can now leave the Channel List screen and return to normal TV viewing by pressing [MENU]. Any attempt to change channel to the locked channel will now display the same window requesting the PIN code and the channel will only be displayed on entry of the correct code. To remove the lock on a channel, repeat the same process as to lock the channel.



MENU LOCK

Simply locking a channel will not deflect a determined would-be viewer. Re-installing the complete channel list, for example, will bypass the channel lock. However, the menus can be locked out of use too, to prevent this.

Display the Main Menu by pressing the [MENU] key, highlight Configuration, and press [SELECT] to display the Configuration menu screen. Highlight the Parental Settings line of the menu (press [DOWN] five times) and press [SELECT] to display the Parental Settings menu (after the PIN code has been entered). Here the menu lock-out can be set and the PIN code changed.

With the Menu Lock line highlighted, use the [LEFT] or [RIGHT] to cycle the menu lock setting through Disabled, Main Menu and Installation. The Main Menu setting will lock out the complete menu system; the Installation Menu setting locks only the Installation menu (see Section 3 - ADVANCED OPERATION - Re-installation); and the Disabled setting allows free access to any of the menus.

You must return to normal TV viewing by pressing the [MENU] key (three times) to activate the lock. Now any attempt to access the locked menus will display the PIN request window and the menus will only be displayed on entry of the correct PIN code.

The same Parental Settings menu is used to change the PIN code. With the Set Lock Key line highlighted, press [SELECT] to display the Set Lock Key window. This requests the new four-digit code to be entered twice (for confirmation) and the new code comes in effect when you return to the Configuration menu by pressing [MENU].

Hint

If you want the channel and menu locks to work efficiently and actually protect channels from access, do change the PIN code from the factory default. Make sure that you choose a number that is not obvious to others but one that can be remembered by you.

FAVOURITE CHANNELS

There will be some channels that you tend to watch more often and some only occasionally. Although some duplicate channels you may want to delete from the channel list, others although not watched frequently, you will not want to do away with altogether. The favourite mode allows the most-watched channels to accessed more easily, leaving the less-watched channels accessible but out of the way.

When the favourite mode is activated, the [P+] and [P-] keys cycle through the favourite channels only and the EPG will list the favourite channels only (other channels can still be accessed by channel list number or from the Channel List menu screen).

Any channel can be a favourite channel and the Channel List menu is used to label those channels you want as favourites.

Display the Channel List menu screen by highlighting Channel List on the Main Menu and pressing [SELECT].

Use the [LEFT] or [RIGHT] keys to highlight the FAVOURITE button at the base of the screen and then, in turn, highlight each channel that is required to be a favourite channel, using the [UP] and [DOWN] keys and press [SELECT]. A channel selected as a favourite appears in the main channel list with a favourites icon against the channel name.

A channel can have its favourites status removed by repeating this procedure, to remove the icon. Leave the Channel List menu by pressing [MENU].Once the required channels have been marked as favourite channels, the favourite mode can be activated to allow easy access to them. Press the [MENU] key to display the Main Menu, the [DOWN] key twice to highlight Configuration, and press [SELECT] to display the Configuration screen. Press the [DOWN] key four times to highlight the Favourite Mode line and using the [LEFT] or [RIGHT] keys change the setting from Off to On.

When you leave the Configuration menu by pressing [MENU] the favourite mode is activated. Now, changing channel using the [P+] or [P-] keys will switch to only those channels marked as favourites in the channel list. Similarly, the on-screen list in the electronic programme guide contains only the favourite channels.

You can still access all the channels in the channel list by keying in their channel list number or by selection from the Channel List screen. Alternatively you can switch off the favourite mode from the Favourite Mode line of the Configuration menu.

Hint

The favourite mode can only be activated if one or more channels in the channel list are marked as favourites. Similarly, if the favourite status is removed from all the channels in the Channel List, the favourite mode is turned off automatically.

PROGRAMME REMINDERS AND TIMERS

With the greatly extended channel choice that digital terrestrial television brings, it is all too easy to miss a favourite programme. The **HDB60** receiver has two facilities built in to help you make sure you catch all the TV shows you want.

PROGRAMME REMINDERS

Programme reminders can be set to signal that a programme is about to start when you are watching another channel. A reminder is set from the Electronic Programme Guide screen.

Press the [GUIDE] key to display the EPG screen and press [RIGHT] to display the next programme details in the text window and highlight the name of the next programme in the list of channels. Press [SELECT] when a programme you want to watch is highlighted and the reminder icon is displayed against that programme's name.

You can exit the EPG screen in the normal way - pressing [GUIDE], [MENU]. Later, shortly before the programme is due to start, the receiver will display a reminder on the screen over the picture of the channel being viewed.

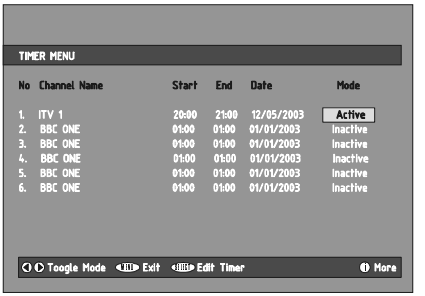
Use the [LEFT] or [RIGHT] keys to highlight the YES or NO buttons as appropriate and press [SELECT]. If you select the YES button, the receiver switches over to the reminder channel.

Note: Reminder events are ignored if any timer event is active at that time.

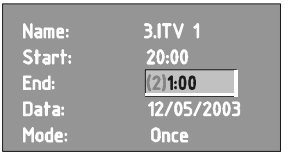
EVENT TIMER

You can also set a timer to switch the receiver to any channel without your intervention. Thisis intended for making video recordings of programmes when you are out. If a single programme is to be recorded, the receiver can be left switched to the required channel and the timer set on the VCR. However, if two or more programmes on different channels are to be recorded then the DVB - T3 receiver's own timer is set as well, to select the required channel when it is needed.

Display the Main Menu by pressing the [MENU] key and highlight and select the Timers line to display the Timer menu screen. Up to five separate timer events can be set and each is displayed in the Timer screen, showing the event number, the channel to be selected, the start time, end time, date and the mode - whether that event is active (and will be acted on) or not.


TIMER MENU
No Channel Name Start End Date Mode
1. ITV 1 20:00 21:00 12/05/2003 Active
2. BBC ONE 01:00 01:00 01/01/2003 Inactive
3. BBC ONE 01:00 01:00 01/01/2003 Inactive
4. BBC ONE 01:00 01:00 01/01/2003 Inactive
5. BBC ONE 01:00 01:00 01/01/2003 Inactive
6. BBC ONE 01:00 01:00 01/01/2003 Inactive
Toogle Mode Exit Edit Timer More

To set an event, highlight its mode button using the [UP] or [DOWN] keys and press [SELECT] to display the timer entry window. Here the five settings of channel name, start time, end time, date and frequency mode can be set. You can move freely between each setting using the [UP] and [DOWN] keys. The channel name is set using the [LEFT] or [RIGHT] keys to display the channel which broadcasts the programme to be recorded. The start time, end time and date are each set with the number keys on the remote control in 24-hour format. The frequency mode determines how often the receiver operates this event and is set with the [LEFT] or [RIGHT] keys to be either Once, Daily, or Weekly.



Hint

If an invalid number for the start or end times or the date is entered, the highest valid number is automatically entered in its place. So, entering 28:30 as the time will automatically change to 23:30, and a date of 15:14:2002 will change to 15:12:2002.

Pressing [MENU] or [SELECT] returns to the Timer screen with the settings in place in the timer event list. The event mode is automatically set to Active and you can now return to normal viewing (press the [MENU] keys) and at the appointed time the receiver will switch over to the required channel and at the end of the event, switch the receiver to standby.

When the Timer screen is displayed, any event can be set to be Inactive (so it will not occur) or the channel, times and frequency mode altered by highlighting the event's Mode button and pressing [SELECT] as before.

You can exit the Timer screen and return to normal TV viewing by pressing [MENU].

Hint

If you are watching digital terrestrial TV at the time the timer event starts, a message is flashed onto the screen announcing that the receiver is 'Switching to timer channel' so you understand what is happening.

RE-INSTALLATION

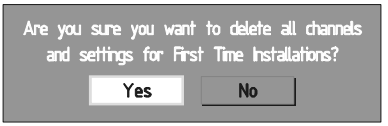
Although your **HDB60** receiver will not lose its settings or stored channels when switched off, you may wish to re-install the receiver because you have moved to a different area with different broadcast frequencies, you wish to reinstate a channel previously deleted from the channel list, or you want to watch new channels which have started broadcasting.

Press the [MENU] key to display the Main Menu and using the [UP] or [DOWN] keys, highlight the Installation line and press [SELECT] to display the Installation Menu.

You can either perform a First Time Installation, effectively resetting the receiver to its ex-factory condition, or just search for channels.

FIRST TIME INSTALLATION

To reset the receiver, highlight the First Time Installation line in the menu and press [SELECT]. A warning screen is displayed in case of accidental operation.



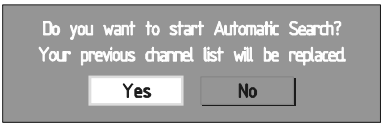
Highlight the YES button with the [LEFT] or [RIGHT] key and press [SELECT] to erase all the channels and settings and switch the receiver to standby. You can now start again as detailed in Section 1 - PREPARATION - Tuning In.

ADD CHANNELS

The **HDB60** receiver can search for channels automatically (searching all the broadcast frequencies for free-to-air channels) or manually (searching one specified broadcast frequency only for any channels to be found there).

Press the [MENU] key to display the Main Menu and using the [UP] or [DOWN] keys, highlight the Installation line and press [SELECT] to display the Installation Menu. Highlight the Add New Channels line and press [RIGHT] to display the options. Select Automatic Search with the [UP] or [DOWN] keys and press [SELECT]. A warning message is displayed. This starts the automatic tuning process as described in Section 1 - PREPARATION - Tuning In, and searchesthrough all the available broadcast frequencies for free-to-air channels. Previous channels will be replaced on automatic search.

If, alternatively, from the search options menu the Manual Search line is highlighted and [SELECT] pressed, the manual search screen is displayed.



Highlight the YES button with the [LEFT] or [RIGHT] key and press [SELECT] to start the automatic search.

This is for searching for digital channels on a single broadcast frequency. The frequency channel number (21-69) is entered in the box at the top left of the screen and the received signal level and signal quality can be observed on the bar graph and signal quality indicator at the bottom.

When [SELECT] is pressed, the receiver searches that frequency and display a list of the channels found. Before returning to the Installation menu.

Again, channels which duplicate those already in the channel list are ignored. However, the manual channel search will find all channels on the broadcast frequency.

When either search is finished, press the [MENU] key to return to normal broadcast viewing, to watch the new digital terrestrial television channels found.

APPENDIX A - SAFETY

POWER

The receiver should be plugged into a 230V to 240V AC, 50Hz supply only.

LEADS

Ensure the power supply lead, and all other leads, are positioned so they are not likely to be walked on or pinched by things placed on or against them. Pay particular attention to the power lead, where it enters the mains plug and where it comes out of the receiver. Do not connect or adjust leads when the receiver is plugged in.

TEMPERATURE AND MOISTURE

Do not leave or use the receiver in a hot, cold or humid area. Do not allow the receiver to get wet - from drips or splashes - as this may be dangerous. Do not place water-filled objects such as flower vases, on top of the receiver.

VENTILATION

Slots and openings in the receiver's cover are for ventilation. Do not cover or block them as this could lead to overheating.

CLEANING

Unplug the receiver before it is cleaned. Use a lightly dampened cloth only. Do not use liquid or aerosol cleaners.

HEAT AND FLAMES

The receiver should not be placed near to naked flames or sources of intense heat, such as an electric fire. Ensure that no naked flames sources, such as lighted candles, are placed on top of the Receiver.

LIGHTNING

Unplug your receiver from the wall socket if there is a storm or lightning, or if it is to be unused for a long time.

REPLACEMENT PARTS

If your receiver needs a replacement part, ensure the person undertaking the repair uses parts which are specified by the manufacturer or have the same specifications as the original part. Other parts may cause a fire, electric shock or other hazards.

BATTERY DISPOSAL

Please ensure that exhausted batteries from the remote control handset are disposed of safely.

SERVICING

Ensure the person who services your receiver is qualified to do so. Do not remove the cover yourself - you could get an electric shock.

We are proud to offer a high-quality product. To keep this level of quality, your receiver should be serviced at a **HITACHI** authorised service centre.

APPENDIX B - SPECIFICATION

GENERAL

Size	235 x138 x 40,5mm
Weight	660 gr.
Power consumption	12 W max.

SYSTEM

Processor	STI5518 32bit @ 81 MHz
Flash memory	2Mbyte
SDRAM	16Mbyte
EEPROM	32Kbit
MHEG-5 engine	compliant with ISO/IEC 13522-5 and UK Engine Profile1
Object carousel support	compliant with ISO/IEC 135818-6 and UK DTT Profile

RECEPTION

Frequency range	474-858MHz
Signal level	-82dBm
Transmission standards	DVB-T, MPEG-2
Demodulation	COFDM with 2K/8K FFT mode
FEC	all DVB modes
Video	MP@ML, PAL, 4:3/16:9
Audio	MPEG Layer I & II 32/44.148kHz

CONNECTIONS

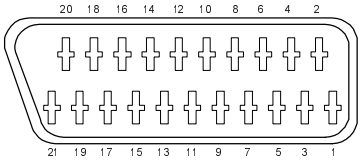
UHF aerial input

UHF aerial loopthrough

TV SCART

Left/Right Audio

TV SCART



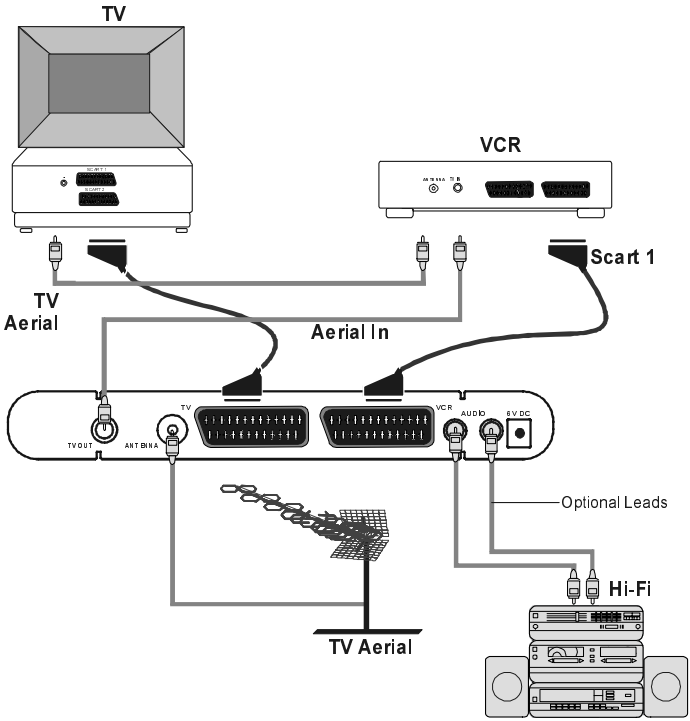
1	Audio right output	12	TXD pin for sw download
2	n/c	13	Ground
3	Audio left output	14	n/c
4	Ground	15	Red output
5	Ground	16	Fast blanking output
6	n/c	17	Ground
7	Blue output	18	Ground
8	Function switching output	19	CVBS output
9	Ground	20	n/c
10	RXD for sw download	21	Ground
11	Green output		

APPENDIX C - CONNECTING A VCR

Unplug the aerial lead and connect this to the ANT IN socket on the rear of your receiver. Connect the aerial lead (supplied) from theTV OUT on the receiver to the ANT IN on the rear of the VCR. Then connect an aerial lead from the TV OUT on the VCR to the ANT IN socket on the rear of your TV.

Connect a scart lead from the TV SCART socket on the rear of the receiver to the SCART 1 socket on the rear of the TV.

Connect a scart lead from the VCR SCART to the SCART 1 on the VCR.



You can now record digital terrestrial television programmes by selecting SCART 1 on the VCR. The VCR will also be able to record analogue television channels in the usual way. Both live and recorded digital terrestrial television programmes can be viewed on the TV by selecting the TV's AV input.

APPENDIX D - TROUBLESHOOTING GUIDE

If you experience problems with the **HDB60** receiver or its installation, in the first instance please read carefully the relevant sections of this User Guide and this Troubleshooting section.

Problem	Possible cause	What to do
Standby light not lit	Mains lead unplugged Mains fuse blown	Check mains lead Check fuse
No signal found	Aerial is disconnected Aerial is damaged/misaligned Out of digital signal area	Check aerial lead Check aerial Check with dealer
No picture or sound	Tuned to digital teletext channel	Retune to another channel
Scrambled channel message	Channel is scrambled	Select alternative channel
No response to remote control	Receiver off Handset not aimed correctly Front panel obstructed Handset batteries exhausted	Plug in and turn on receiver Aim handset at front panel Check for obstructions Replace handset batteries
Forgotten channel lock code		Re-install channels to cancel channel lock
Forgotten menu lock code		Contact help line
The remote control will not operate your **HDB60** receiver	(1) The batteries in your remote control need replacing (2) There is an obstruction blocking the signal path between the remote control and the receiver	(1) Replace the batteries (2) Check that there is nothing in the way of the path between the remote control and the receiver
After moving the **HDB60** receiver to another room you find you are no longer able to receive the digital reception	The aerial feed from new point may come through a distribution system which may reduce the digital signal now received by the **HDB60** receiver	Try a direct feed from the antenna

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